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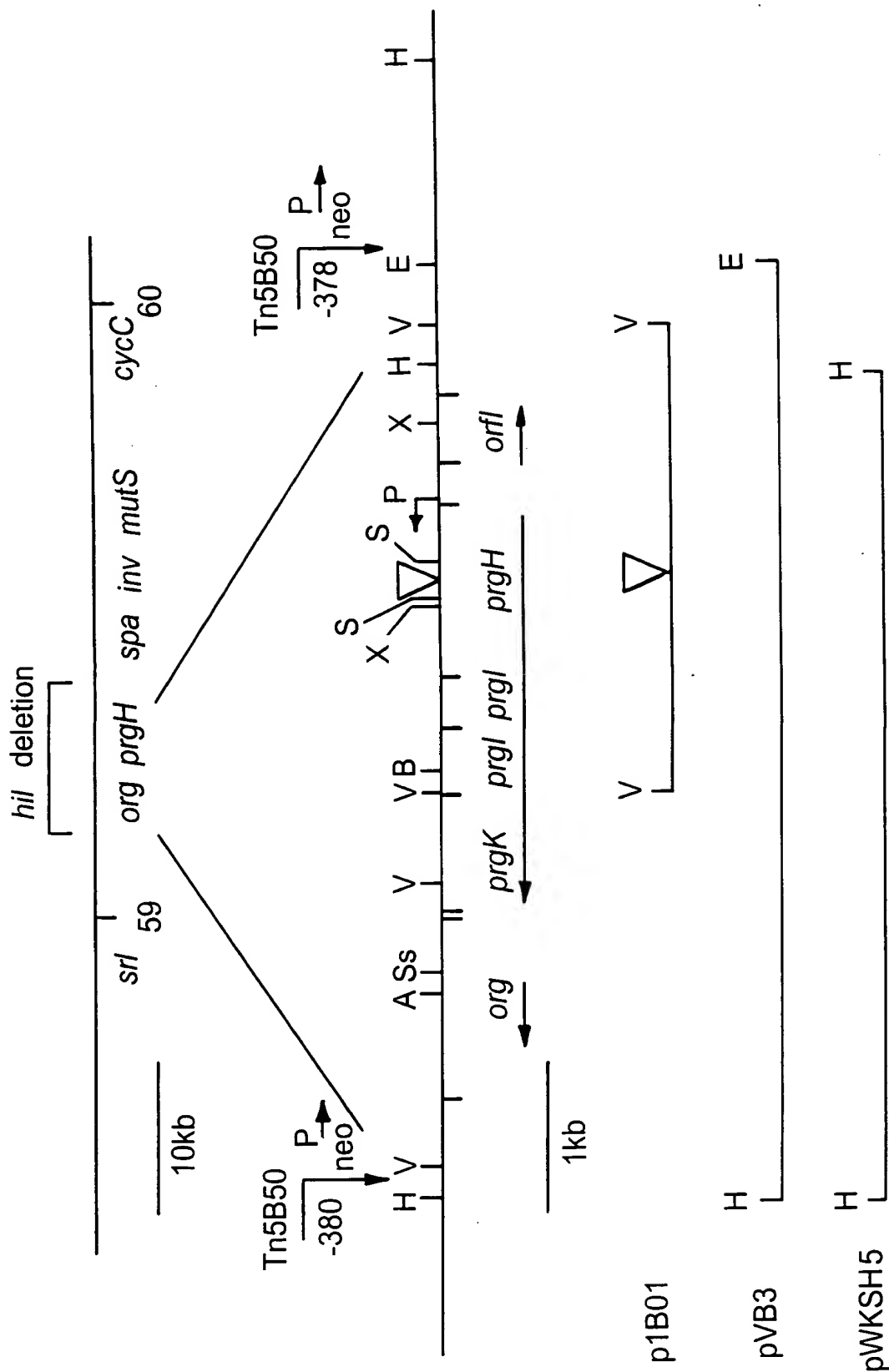


FIG. 1

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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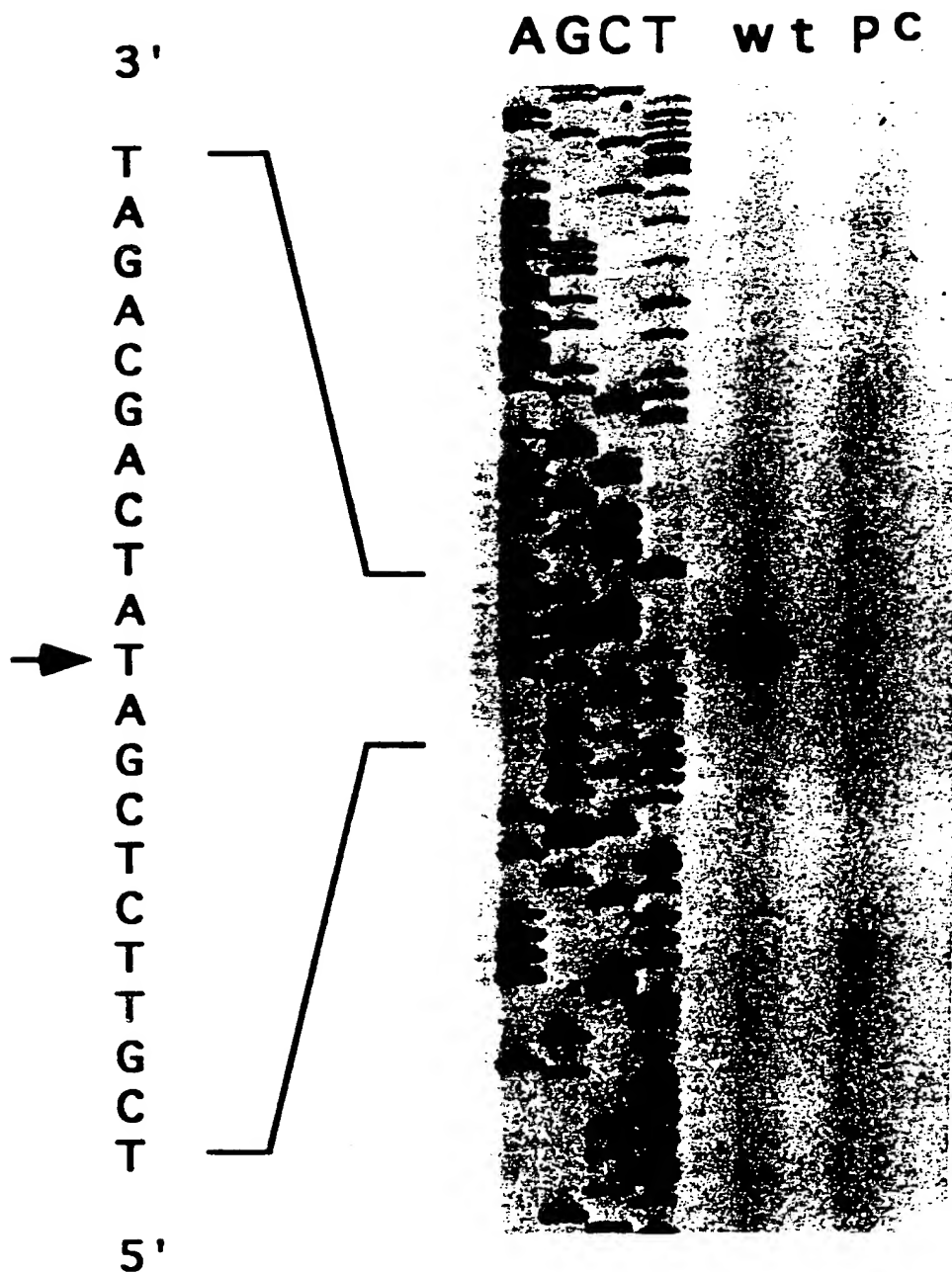


FIG. 3

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		* **	+* **	** *	*	**	**	*****	+*	+	
PrgI	1	..MATPWSGY.....LDDVSAKFDTGVDNLQTQVTEALDKLAAKPSDP	41								
MxiH	1	MSVTVPND DWT.....LSSLSETFDDGTQT LQELTLALDKLAKNPSNP	44								
YscF	1	...MSNFSGFTKGNDIADLDAVAQTLKKPADDANKAVNDSIAALKDTPDNP	48								

```

++++ +***** ++++++***** ++ ++++++*****
PrgI 42 ALLAA YQSKLSEYNLYRNAQSN TVKVKDIDAAIIQNFR 80 SEQ ID NO:32:
MxiH 45 QLLAE YQSKLSEYTLRNAQSN TVKVIKD VDAIIQNFR 83 SEQ ID NO:33:
YscF 49 ALLAD LQHSINKWSVIYNISSTIVR SMKDLMOGILQKFP 87 SEQ ID NO:34:

```

[illegible]

FIG. 4B

		*** * * +***+ +** ** + ***+ ***+ *** + +	
PrgK	1	.MIRRVLYTFLLLVMTLAGCKDK.DLLKGLDQEQANEVIAVLQMHNIEANKI	49
MxiJ	1	.MIRYKGFILFLLMLIGCEQREELISNLSQRQANEIISVLERHNITARKV	50
YscJ	1	MKVKTSLSLILILFLTGCK..VDLYTGISQKEGNEMLALLRQEGLSADKE	49

		* * * * *	+ * **	+	*	+	++	** *	++++	+++++++*	
PrgK	50	DSGKLGYSITVAEPDFTA	AAVYWIKTYQLPPRPR	VEIAQMFPADSLVSSPR							99
MxiJ	51	DGGKQGISVQVEKGTF	ASAVDLRMRYDLNPNP	ERVDISQMFPTDSL	VSSPR						100
YscJ	50	PDKDGKIKLLVEESD	VAQAIDILKRKGYPH	ESFSTLQDVFPKDGL	ISSPI						99

		+++++++*****+ +++++++ *** * * ** *	
PrgK	100	AEKARLYSAIEQRLEQSLQTMEGVLSARVHISYDIDAGENGRPPKPVLHS	149
MxiJ	101	AEKARLYSAIEQRLEQSLVSIGGVISAKIHVSYDLE..EKNISSKPMHIS	148
YscJ	100	EELARLNYAKAQEI SRTLSEIDGVLVARVHVLP EEQNNKGKKGVAASAS	149

		* *	** ++++++**	** ++++++ +	* *	
PrgK	150	ALAVYERGSPLAHQISDIKRLKNSFADVDYDNISVVL...	SERSDAQL	195		
MxiJ	149	VIAIYDSPKESELLVSNIKRFLKNTFSDVKYENISVIL...	TPKEEYVY	195		
YscJ	150	VFIKHAADIOFDTYIPOIKQLVNNSIEGLAYDRISVILVPSVDVRQSSHL	199			

		*	**	* * +*	*****	+*	*	+			
PrgK	196	Q..APGTPVKRNSFATSWIVLIILLSVMSAGFGVWYYKNHYARNKKKGITA	243	SEQ ID NO:37							
MxiJ	196	TNVQPVEKVSEFLTNEVIYLFGLMAVLVVILLVWAFKTGWFKRNKI	242	NO:38							
YscJ	200	P..RNTSILSIQVSEESKGRLLIGLSSLILLPVTNLAQYFWLQRKK	244	SEQ ID NO:39							
PrgK	243	DDKAKSSNE	252	SEQ ID NO:39							

FIG. 4C

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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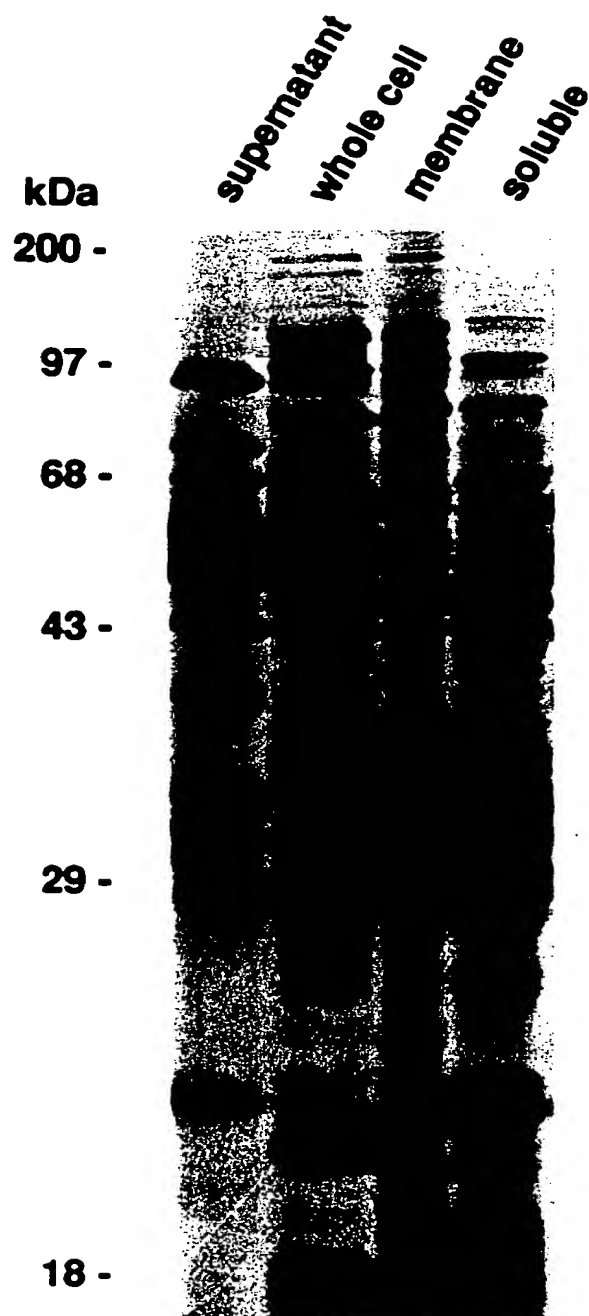


FIG. 5

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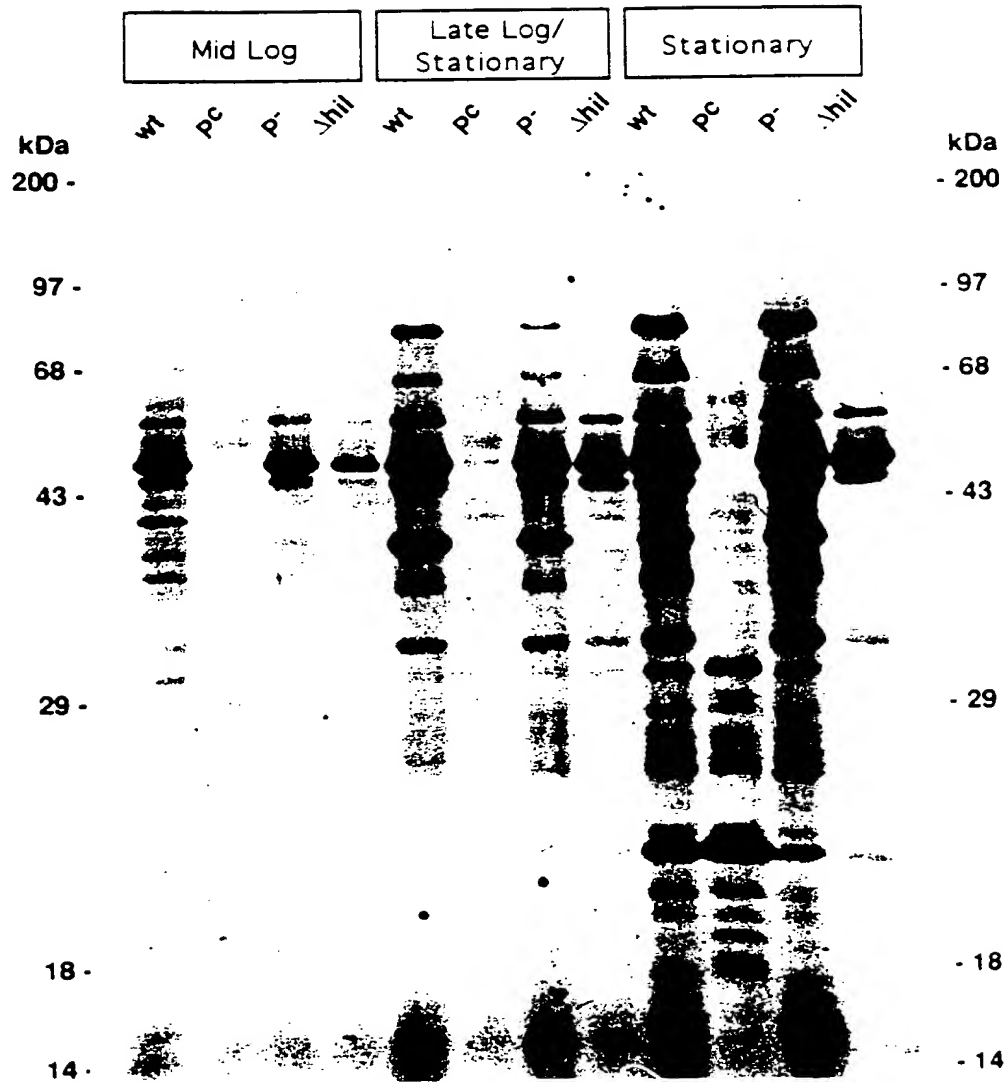


FIG. 6

APPROVED	D.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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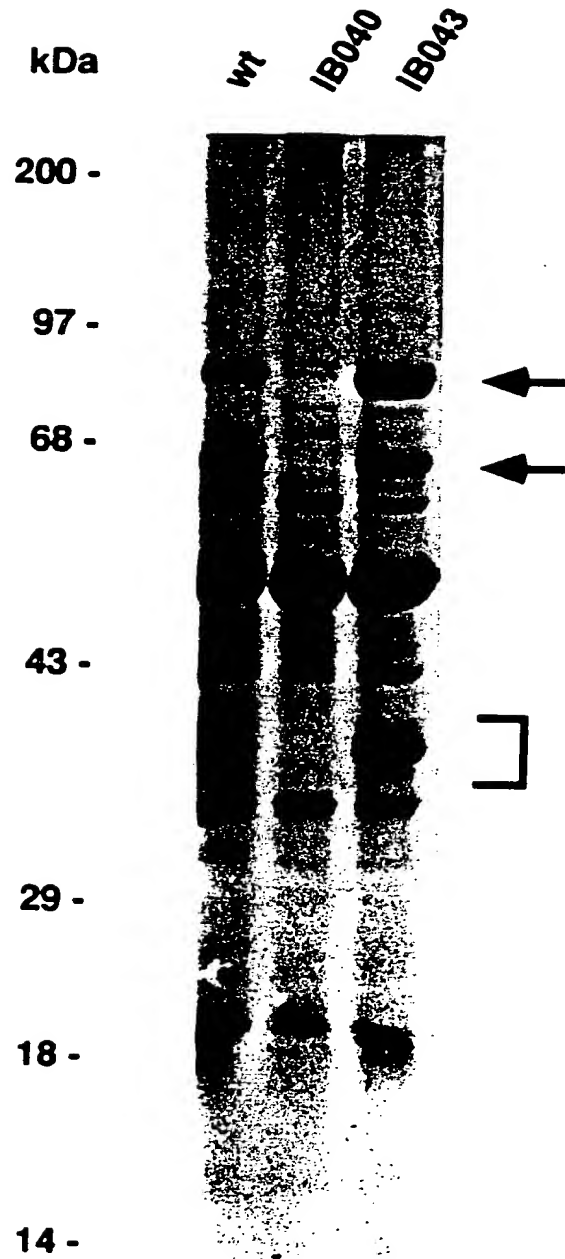


FIG. 7

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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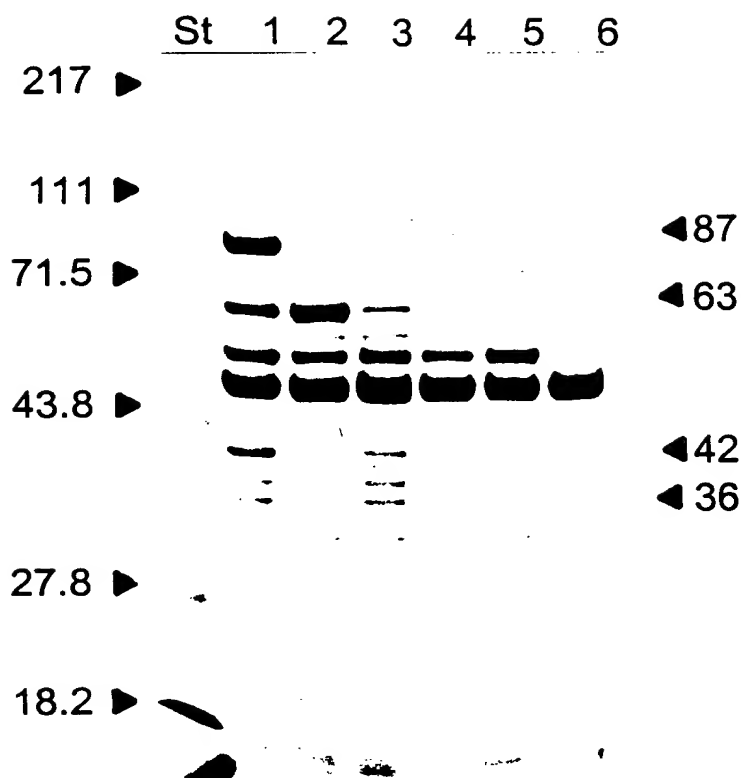


FIG. 8

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INVASION [% of inoculum]	A (87)	Ssp C (42)	D (36)
17.5 ± 2.6	+	+	+
23.2 ± 3.5	-	+	+
0.1 ± 0.05	-	-	-

INVASION [% of inoculum]	A (87)	Ssp C (42)	D (36)
7.1 ± 2.3	+	+	+
0.2 ± 0.09	-	+	-
16.5 ± 2.7	-	+	+
0.1 ± 0.05	-	-	+

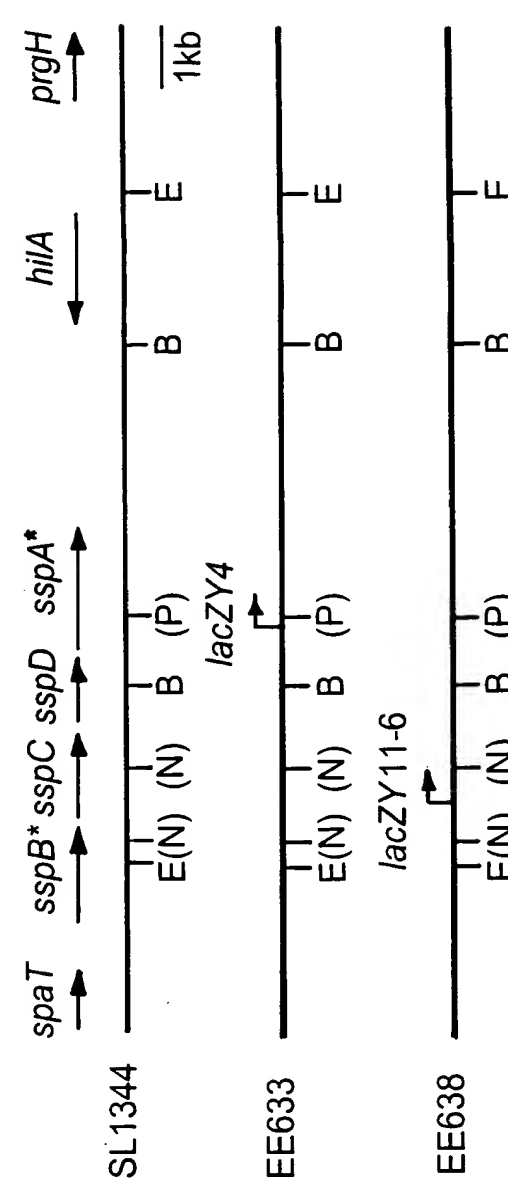


FIG. 9

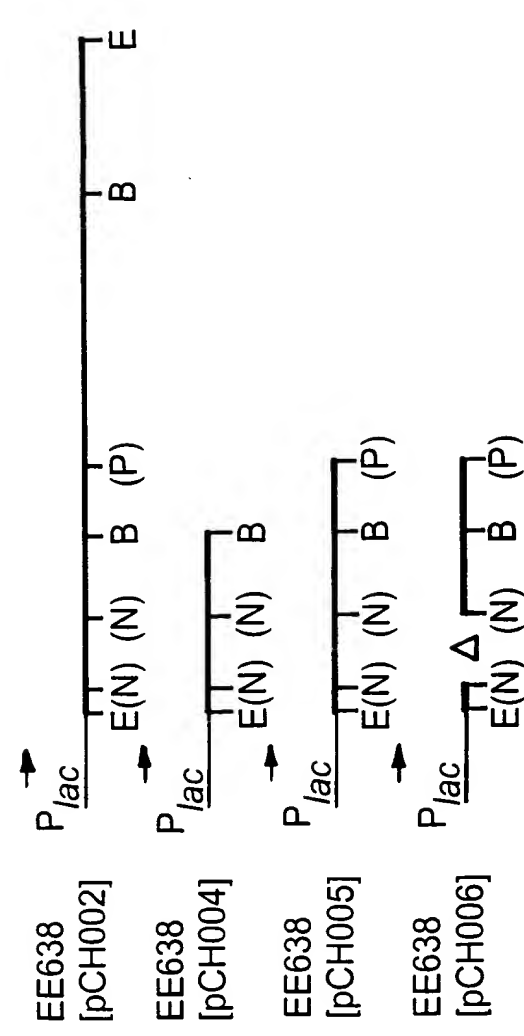


FIG. 10

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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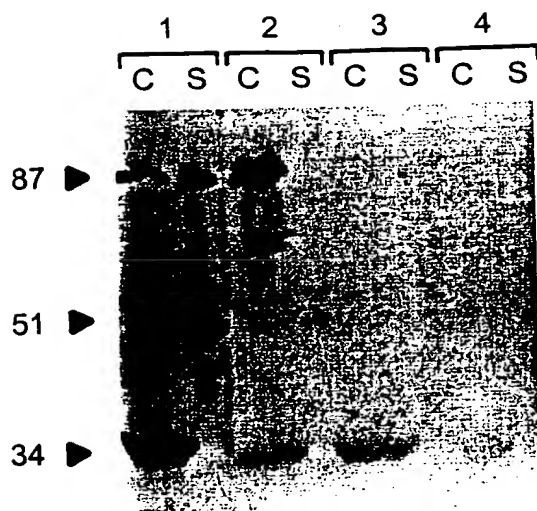


FIG. 11

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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SspD 1 MLNIQNSASPHPGIVAERPQTPSASEHVETA VVPSTTEHRCGTDIISLSQAATKHQAQQTIQ...STPPISEENNDERTLARQQLTSSLNALAKSGVSL
IpaD 1 MNITTLTNSISTSSFPNNTNGSSTETVNSDIKTTTSSHPVSSLTMLNDTTLHNI RTTNOALKKELSQKTLTKTSLEETALHSSQISMDVNVKSAQLLDIL
SspD 98 SAEQ...NENLRSAF.SAPTSALFSAPMAQPRTTISDAEIDWMVSONISAIGDSYIGVYENVVAVTDFYQAFSDILSKMGWLLP.GKDGNTVKLDVT
IpaD 100 SRNEYPINKDARELLHSAPKEAELDGDQM.....ISHRELWAKIANSINDINEQYLVYEHAVSSYTMQYQDFSAVLSLAGWISPGGNDGNSVKLQVN
SspD 193 SLKNDINSLVKNYNQINSNTVLPFAQSGSGVKVATEAEAROWLSELNLPNSCLKSYGSGYVVTVDLTPLOKMVQDIDGLGAPGKDSKLEMDNAKYQAWQS
IpaD 194 SLKALEELKEKYK....DKPLYPANNT....VSQEQANKWLTGCTIGKVSQKNGGYVVSINMTPIDNMLKSLDNLGGNG...EVLDNAKYQAWNA
SspD 293 GFKAQEEENKTTLQTLTKQYSNANSYDNLVKVLSSTISSLETAKSFLOQ 343 SEQ ID NO:44
IpaD 282 GFSAEDETMMKNLQTLVQKYSNANSIFDNLVKVLSSTISSCTYTDKLFHF 332 SEQ ID NO:45

FIG. 14

SspA 1 MVTSVRTPQPPVIMPQMTEIKTQATNLAANLSAVRESATATLSGEIKGPQLEDFPALIKQASLD 64 SEQ ID NO:46

FIG. 15

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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1 2 3 4 5 6 7

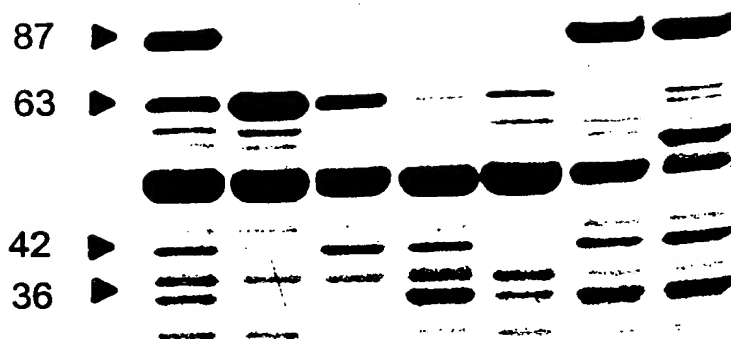


FIG. 16

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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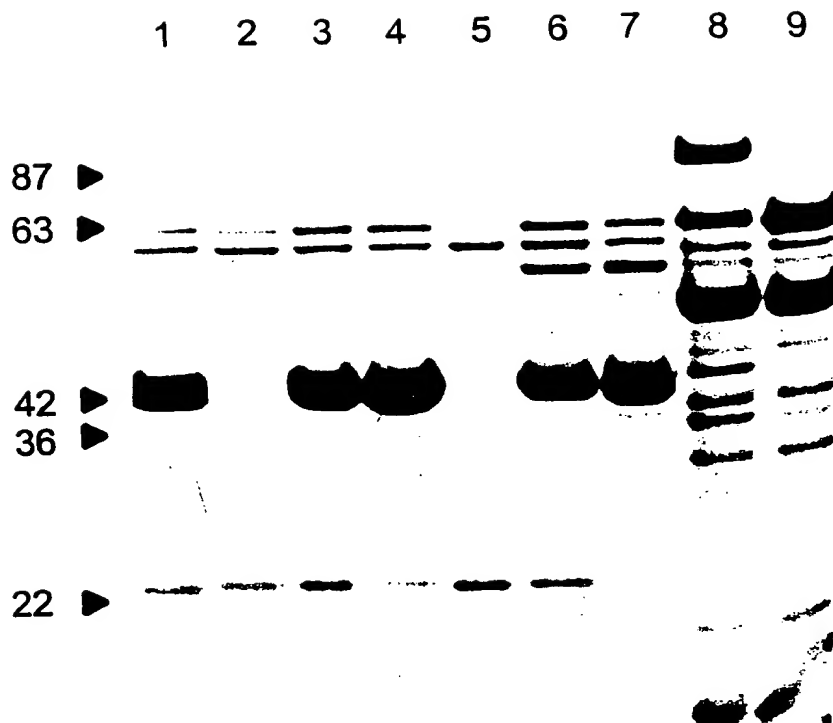
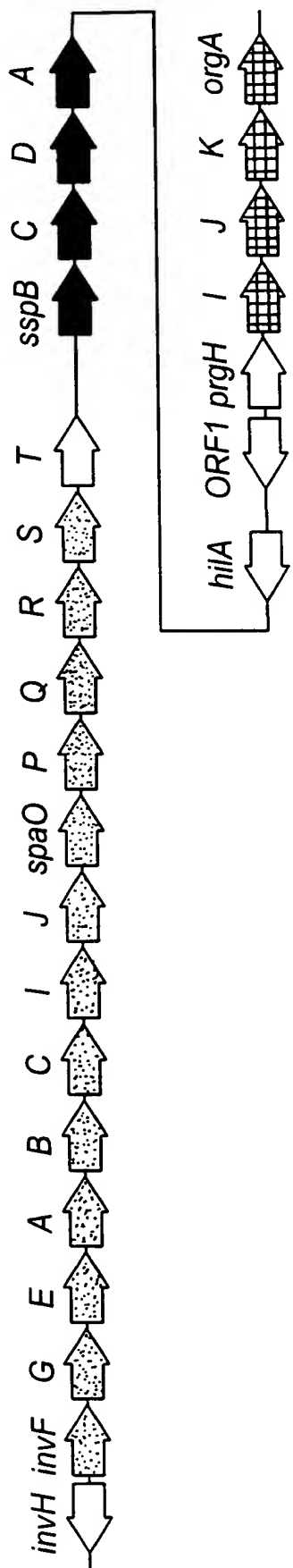


FIG. 17

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S. typhimurium



S. flexneri

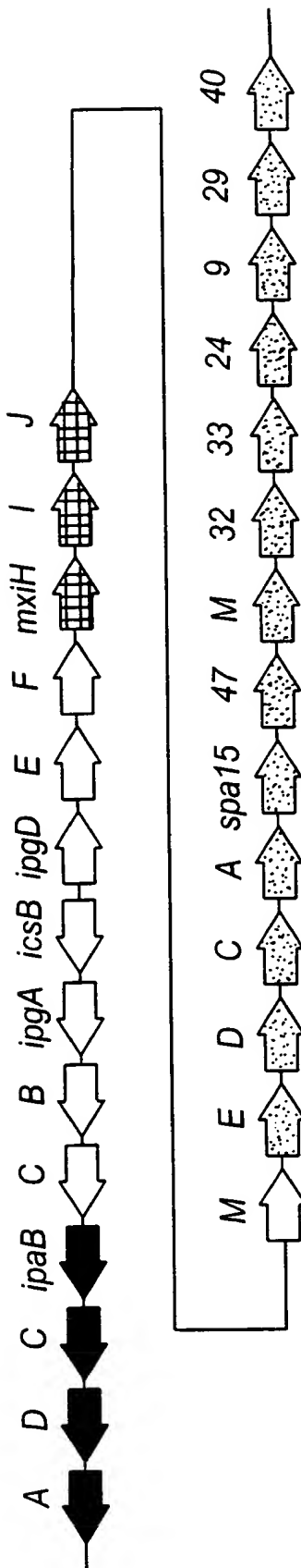


FIG. 18

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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SEQ ID NO:1:

CGCAAAGCCG	AGGAAACGAA	CCGCATTATG	GGATGTATCG	GGAAAGTCCT	CGGCGCGCTG	60
CTAACCATTG	TCAGCGTTGT	GGCCGCTGTT	TTTACCGGTG	GGGCGAGTCT	GGCGCTGGCT	120
GCGGTGGGAC	TTGCGGTAAT	GGTGGCCGAT	GAAATTGTGA	AGGCGGCGAC	GGGAGTGTCT	180
TTTATTCAGC	AGGCGCTAAA	CCCGATTATG	GAGCATGTGC	TGAAGCCGTT	AATGGAGCTG	240
ATTGGCAAGG	CGATTACCAA	AGCGCTGGAA	GGATTAGGCG	TCGATAAGAA	AACGGCAGAG	300
ATGGCCGGCA	GCATTGTTGG	TGCGATTGTC	GCCGCTATTG	CCATGGTGGC	GGTCATTGTG	360
GTGGTCGCAG	TTGTCTGGGA	AGGCGCGGCG	GCGAAACTGG	GTAACGCGCT	GAGCAAAATG	420
ATGGGCGAAA	CGATTAAGAA	GTTGGTGCCT	AACGTGCTGA	AACAGTTGGC	GCAAAACGGC	480
AGCAAACTCT	TTACCCAGGG	GATGCAACGT	ATTACTAGCG	GTCTGGGTAA	TGTGGGTAGC	540
AAGATGGGCC	TGCAAACGAA	TGCCTTAAGT	AAAGAGCTGG	TAGGTAATAC	CCTAAATAAA	600
GTGGCGTTGG	GCATGGAAGT	CACGAATACC	GCAGCCCACT	CAGCCGGTGG	TGTTGCCGAG	660
GGCGTATTTA	TTAAAAATGC	CAGCGAGGCG	CTTGCTGATT	TTATGCTCGC	CCGTTTTGCC	720
ATGGATCAGA	TTCAGCAGTG	GCTTAAACAA	TCCGTAGAAA	TATTTGGTGA	AAACCAGAAG	780
GTAACGGCGG	AACTGCAAAA	AGCCATGTCT	TCTGCGGTAC	AGCAAAATGC	GGATGCTTCG	840
CGTTTTATTG	TGCGCCAGAG	TGCGGCATAA				870

FIG. 19

SEQ ID NO:2:

ATGTTAATTA	GTAATGTGGG	AATAAATCCC	GCCGCTTATT	TAAATAATCA	TTCTGTTGAG	60
AATAGTTCAC	AGACAGCTTC	GCAATCCGTT	AGCGCTAAAG	ATATTCTGAA	TAGTATTGGT	120
ATTAGCAGCA	GTAAAGTCAG	TGACCTGGGG	TTGAGTCTTA	CACTGAGCGC	GCCTGCGCCA	180
GGGGTATTAA	CGCAAACCCC	CGGAACGATC	ACGTCCCTTT	TAAAAGCCAG	TATTCAAAAT	240
ACCGACATGA	ATCAGGATTT	GAATGCTCTG	GCAAATAATG	TCACGACTAA	AGCGAATGAG	300
GTTGTGCAAA	CCCAGTTACG	CGAGCAGCAG	GCAGAAGTCG	GAAAGTTTTT	TGATATTAGC	360
GGAATGTCTT	CCAGTGCCGT	TGCGCTGTTG	GCTGCCGCGA	ATACGTTAAT	GCTGACGTTG	420
AACCAGGCTG	ATAGCAAAC	GTCTGGTAAG	TTGTCATTAG	TCAGTTTGA	TGCAGCTAAA	480
ACGACGGCAA	GCTCCATGAT	GCGCGAAGGG	ATGAATGCGT	TGTCCGGTAG	TATTTCCCAG	540
AGCGCGCTTC	AGTTGGGGAT	CACTGGCGTG	GGCGCCAAAC	TGGAATATAA	GGGGCTGCAG	600
AATGAAAGAG	GCGCGCTTAA	ACATAATGCC	GCGAAGATCG	ATAAACTGAC	CACTGAAAGC	660
CACAGTATTA	AAAACGTGCT	GAACGGGCAG	AATAGCGTCA	AACTCGGTGC	TGAAGGCGTC	720
GATTCTCTGA	AATCGTTAAA	TATGAAGAAA	ACCGGTACCG	ATGCGACGAA	AAATCTTAAT	780
GATGCGACGC	TTAAATCTAA	TGCCGGAACC	AGCGCCACGG	AAAGTCTGGG	TATTAAGAGC	840
AGTAATAAAC	AAATCTCCCC	TGAACATCAG	GCTATTCTGT	CGAAACGTCT	TGAGTCTGTC	900
GAATCCGATA	TTCGTCTTGA	GCAGAATACC	ATGGATATGA	CCCGAATCGA	TGCGCGCAAG	960
ATGCAGATGA	CGGGCGATCT	GATTATGAAG	AACTCGGTCA	CGGTCCGTGG	TATTGCAGGG	1020
GCGTCCGGGC	AGTACGCCGC	TACTCAGGAA	CGTTCCGAGC	AGCAAAATTAG	CCAGGTGAAT	1080
AACCGGGTTG	CCAGCACCGC	ATCGGACGAA	GCCCGTGAAA	GTTACGTAAT	ATCGACACGC	1140
CTGATTTCAGG	AAATGCTGAA	AACAATGGAG	AGCATTAACC	AGTCGAAAGC	ATCCGCACTC	1200
GCTGCTATCG	CAGGCAATAT	TGCGGCTTAA				1230

FIG. 20

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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SEQ ID NO:3:

ATGCTTAATA	TTCAAAATTA	TTCCGCTTCT	CCTCATCCGG	GGATCGTTGC	CGAACGGCCG	60
CAGACTCCCT	CGGCGAGCGA	GCACGTCGAG	ACTGCCGTGG	TACCGTCTAC	CACAGAACAT	120
CGCGGTACAG	ATATCATTTT	ATTATCGCAG	GCGGCTACTA	AAATCCACCA	GGCACAGCAG	180
ACGCTGCAGT	CAACGCCACC	GATCTCTGAA	GAGAATAATG	ACGAGCGCAC	GCTGGCGCGC	240
CAGCAGTTGA	CCAGCAGCCT	GAATGCGCTG	GCGAAGTCCG	GCGTGTCTAT	ATCCGCAGAA	300
CAAAATGAGA	ACCTGCGGAG	CGCGTTTTCT	GCGCCGACGT	CGGCCTTATT	TAGCGCTTCG	360
CCTATGGCGC	AGCCGAGAAC	AACCATTCTT	GATGCTGAGA	TTTGGGATAT	GGTTTCCCAA	420
AATATATCGG	CGATAGGTGA	CAGCTATCTG	GGCGTTTATG	AAAACGTTGT	CGCAGTCTAT	480
ACCGATTTTT	ATCAGGCCTT	CAGTGATATT	CTTTCCAAAA	TGGGAGGCTG	GTTATTACCA	540
GGTAAGGACG	GTAATACCGT	TAAGCTAGAT	GTTACCTCAC	TCAAAAATGA	TTTAAACAGT	600
TTAGTCAATA	AATATAATCA	AATAAACAGT	AATACCGTTT	TATTTCAGC	GCAGTCAGGC	660
AGCGGCGTTA	AAGTAGCCAC	TGAAGCGGAA	GCGAGACAGT	GGCTCAGTGA	ATTGAATTTA	720
CCGAATAGCT	GCCTGAAATC	TTATGGATCC	GGTTATGTCT	TCACCGTTGA	TCTGACGCCA	780
TTACAAAAAA	TGGTTCAGGA	TATTGATGGT	TTAGGCGCGC	CGGGAAAAGA	CTCAAAACTC	840
GAAATGGATA	ACGCCAAATA	TCAAGCCTGG	CAGTCGGGTT	TTAAAGCGCA	GGAAGAAAAT	900
ATGAAAACCA	CATTACAGAC	GCTGACGCAA	AAATATAGCA	ATGCCAATTC	ATTGTACGAC	960
AACCTGGTAA	AAGTGCTGAG	CAGTACGATA	AGTAGCAGCC	TGGAAACCGC	CAAAAGCTTC	1020
CTGCAAGGAT	AA					1032

FIG. 21

ROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
FTSMAN		

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ATGGTTACAA GTGTAAGGAC TCAGCCCCC GTCATAATGC CAGGTATGCA GACCGAGATC
AAAACGCAGG CCACGAATCT TGC GGCGAAT CTTTCCGCAG TCAGAGAAAG TGCCACAGCG
ACGCTGTCAG GGGAAATTAA AGGCCCCGAA CTGGAAGATT TTCCCGCGCT GATCAAACAG
GCGAGTCTGG ATGC SEQ ID NO:4

RKAEETNRIMGCIGKVLGALLTIVSVVAAVFTGGASLALAAVGLAVMVADEIVKAATGVS
FIQQALNPIMEHVLKPLMELIGKAITKALEGLGVDRKRQRWPAALLVRLSPLCHGDAVIV
VVAVVGKGAALKGNALSKMMGETIKKLVPNVLKQLAQNGSKLFTQGMQRITSGLGNVGS
KMGLQTNALSKELVGNTLNKVALGMEVTNTAAQSAGGVAEGVFIKNASEALADFMLARFA
MDQIQWLKQSVEIFGENQKVTAELQKAMSSAVQQNADSRFILRQSRAZ SEQ ID NO:5

FIG. 22

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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MLISNVGINPAAYLNNHSEVENSSQTASQSVSAKDILNSIGISSSKVSDLGLSPTLSAPAP
GVLTQTPGTITTSFLKASIQNTDMNQDLNALANNVTTKANENVVQTQLREQQAEVGKFFDIS
GMSSSAVALLAAANTLMLTLNQADSKLSGKLSLVSFDAAKTTASSMMREGMNALSGSISQ
SALQLGITGVGAKLEYKGLQNERGALKHNAAKIDKLTTEHSIKNVLNGQNSVKLGAEGV
DSLKSLNMKKTGTDATKNLNDATLKSNAAGTSATESLGIKDSNKQISPEHQAILSKRLESV
ESDIRLEQNTMDMTRIDARKMQMTGDLIMKNSVTVGGIAGASGQYAATQERSEQQISQVN
NRVASTASDEARESSRKSTSLIQEMLKTMESINQSKASAL AAIAGNIRAZ
SEQ ID NO:6

MLNIQNYASAPHPGIVAERPQTPSASEHVETAVVPSTTEHRGTDIISLSQAATKIHQAQQ
TLQSTPPISEENNDERTLARQQLTSSLNALAKSGVLSAEQENLRSAPFSAPTSALFSAS
PMAQPRTTISDAEIWDMVSONISAIGDSYLGVEYENVVAVYTDIFYQAFSDILSKMGGWLLP
GKDGNTVKLDVTSKNDLNSLVNKYNQINSNTVLFFPAQSGSGVKVATEAEARQWLSELNL
PNSCLKSYGSGYVVTVDLTPLQKMVDIDGLGAPGKDSKLEMDNAKYQAWQSGFKAQEEN
MKTTLQTLTQKYSNANSLYDNLVKVLSSTISSSLETAKSFLQGZ
SEQ ID NO:7

MVTSVRTQPPVIMPGMQTEIKTQATNLAANLSAVRESATATLSGEIKGPQLEDFPALIKQ
ASLD
SEQ ID NO:8

FIG. 23

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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ATGCATTATTTTTTTATCATCGTAATCTGGTTGCTTAGCATAAATACGGCATGGGCTGAT
TCTGGCTTCAGGCTGAAAAAATGTTCAATATTGAATCCGAACACTTTTACGCTATCGCCCAGCAG
GAATCGGCGATGAAACCTGGCGCCATTGGTCATAACCGAGATGGTTCAACCGATCTTGGCCTGAT
GCAAATTAACAGCTTCCATATGAAAAGGCTGAAAAAATGGGGATTAGTGAAAAACAGTTGTTAC
AGGACCCCTGCATTTCTGTCTATTGTGGGCGACCTCCATTTTATCAGATATGATGAAAATCTACGG
TTATAGCTGGGAGGCCGTTGGCGCTTATAATGCCGGGACGTCGCCGAAACGATCGGATATAAGGA
AACGTTATGCTAAAAAATTTGGGAGAATTACAGAAAATTTAAAAGGAATGTCAGCAGAAGAGAAA
AACAAAAGACTTTCTATCGCGGCAACAAATAA (SEQ ID NO:9)

ATCAGCTTGCCGTCGTCATAAGCAACTGGGCTTGCAATTGCTTTTAGTTGTACAACTGTGCAGGC
GTCTTCCAGCATTCTATTGTTCCGTGAATCCGGAAATCTGCACGTACCTGCTCCAGATTACTATG
AGGATTATCCTTAAGTACAAGGGCCGCGCCATCGTTCCGGTTCTTCCCCTCCGCCCAGACAAT
GAATCATCGGTAAATGCTTATCTGATGAACTACGCCCCGGCGCGCCATTTTGGTTACTATTTTTC
ACCCTATCCGCCAGGTATTCTAACTGATCCGTAGACGGTAACGGCTGGTGATCTGGCCAATTTT
CACATGCAATACCGGGATTGTATACCGCTTTCCCCGCAGGACAGTTGCATATTGTATTGGTCTAT
CGCTTCTCCCTGACTGGCTGAGCTCTCTTTTGGCTGTTGGTATGCACCTCGCCAAAGGTGTAGC
TCCCTCTGAAATAGGTGGTAATTGTTTTGCCTGCATCTGATCTTCCGACGTTAACACCACCAGGC
ACGAGCATTCTTTTTCAAGAAGCATTTTCATATGCGCTTCCAGCGCATCCCGGCGATTT
 (SEQ ID NO:10)

FIG. 24

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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MHYFFIIVIWLLSINTAWADSGFRLKKCSI LNPNYFTLSPSRNRZN LAPLVITEMVQPI
LAZCKLTASIZKGZKKWGLVKNSCYRTPAFLSLWATSILSDMMKIYGYSWEAVGAYNAGT
SPKRSDIRKRYAKKIWENYRKLKGMSAEEKNKRLSIAANK

SEQ ID NO:11

WPGTICGQQHSINQQTQVKLSDGMPVPVIRLTFDGKPVALAGIRTQKIRPDRLEAHMKML
LEKECSCLVLTSESRDAGKTITTYFRGSYTFGEVHTNSQKVSSASQGEAIDQYNMQLSC
GEKRYTIPVLHVKNWPDHQPSTQLEYLADRVKNSNQNGAPGRSSDKHLPMIHCLGG
VGRGTGMAAALVLKDNPHSNLEQVRADFRIHGTEICWKTPAQFVQLKAMQAQLLMTTAS

SEQ ID NO:12

FIG. 25

MRDCLNNGNPVLNVGASGLTTLPDRLPPHITTLVIPDNNLTSLPELPEGLRELEVSGNLQ
LTSLPSLPQGLQKLWAYNNWLASLPTLPPGLGLAVSNNQLTSLPEMPALREL RVSGNN
LTSLRALPSGLQKLWAYNNRLTSLPEMSPGLQELDVSHNQLTRL PQSLTGLSSAARVYLD
GNPLSVRTRDRLCGHHWPFRHQDTLRYGGAFRPREARALHLAVADWLTSAREGEAAQADR
WQAFGLEDNAAAFSLVLDRLRETFENFKKDAGFKAQISSWLTQLAEDAALRAKTFAMATEA
TSTCEDRVTHALHQMNNVQLVHNAEKGEYDNNLQGLVSTGREMFRLATLEQIAREKAGTL
ALVDDVEVYLAFQNKLESLELTSVTSEMRFFDVSGVTVSDLQAADVQVKTAENSGFSKW
ILQWGPLHSVLERKVPERFNALREKQISDYEDTYRKLYDEV LKSSGLVDDTDAERTIGVS
AMDSAKKEFLDGLRALVDEV LGSYLTARWRLNZ

SEQ ID NO:14

FIG. 27

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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ATGCGTGATT GCCTGAATAA CGGCAATCCA GTGCTTAACG TGGGAGCGTC AGGTCTTACC
ACCTTACCAG ACCGTTTACC ACCGCATATT ACAACACTGG TTATTCCTGA TAATAATCTG
ACCAGCCTGC CGGAGTTGCC GGAAGGACTA CGGGAGCTGG AGGTCTCTGG TAACCTACAA
CTGACCAGCC TGCCATCGCT GCCGCAGGGA CTACAGAAGC TGTGGGCCTA TAATAATTGG
CTGGCCAGCC TGCCGACGTT GCCGCCAGGA CTAGGGGATC TGGCGGTCTC TAATAACCAG
CTGACCAGCC TGCCGGAGAT GCCGCCAGCA CTACGGGAGC TGAGGGTCTC TGGTAACAAC
CTGACCAGCT GCGCGCGCTG CCGTCAGGAC TACAGAAGCT GTGGGCCTAT AATAATCGGC
TGACCAGCCT GCCGGAGATG TCGCCAGGAC TACAGGAGCT GGATGTCTCT CATAACCAGC
TGACCCGCTT GCCGCAAAGC CTCACGGGTC TGTCTTCAGC GGCACGCGTA TATCTGGACG
GGAATCCACT GTCTGTACGC ACTCGTGACA GGCTCTGCGG ACATCATTGG CCATTTCAGGC
ATCAGGATAC ACTTCGATAT GCGGGGGCCT TCCGTCCCCG GGAAGCCCGG GCACTGCACC
TGGCGGTTCG TGAATGGCTG ACGTCTGCAC GGGAGGGGGA AGCGGCCAG GCAGACAGAT
GGCAGGCGTT CGGACTGGAA GATAACGCCG CCGCCTTCAG CCTGGTCCTG GACAGACTGC
GTGAGACGGA AAACCTTCAA AAAGACGCGG GCTTTAAGGC ACAGATATCA TCCTGGCTGA
CACAACCTGC TGAAGATGCT GCGCTGAGAG CAAAAACCTT TGCCATGGCA ACAGAGGCAA
CATCAACCTG CGAGGACCGG GTCACACATG CCCTGCACCA GATGAATAAC GTACAACCTGG
TACATAATGC AGAAAAAGGG GAATACGACA ACAATCTCCA GGGGCTGGTT TCCACGGGGC
GTGAGATGTT CCGCCTGGCA AACTGGAAC AGATTGCCCC GGAAGGAGCC GGAACACTGG
CTTAGTTCGA TGACGTTGAG GTCTATCTGG CGTTCCAGAA TAAGCTGAAG GAATCACTTG
AGCTGACCAG CGTGACGTCA GAAATGCGTT TCTTTGACGT TTCCGGCGTG ACGGTTTCAG
ACCTTCAGGC TGCGGACGTT CAGGTGAAAA CCGCTGAAAA CAGCGGGTTC AGTAAATGGA
TACTGCAGTG GGGGCCGTTA CACAGCGTGC TGGAACGCAA AGTGCCGGAA CGCTTTAACG
CGCTTCGTGA AAAGCAAATA TCGGATTATG AAGACACGTA CCGGAAGCTG TATGACGAAG
TGCTGAAATC GTCCGGGCTG GTCCGACGATA CCGATGCAGA ACGTACTATC GGAGTAAGTG
CGATGGATAG TGCGAAAAAA GAATTTCTGG ATGGCCTGCG CGCTCTTG TGATGAGGTGC
TGGGTAGCTA TCTGACAGCC CCGTGCGCTC TTAAGTGA

SEQ ID NO:13

FIG. 26

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CGCAAAGCCGAGGAAACGAACCGCATTATGGGATGTATCGGGAAAGTCCTCGGCGCGCTG
CTAACCATTGTGTCAGCGTTGTGGCCGCTGTTTTTACCGGTGGGGCGAGTCTGGCGCTGGCT
GCGGTGGGACTTGCGGTAATGGTGGCCGATGAAATTGTGAAGGCGGCGACGGGAGTGTG
TTTATTTCAGCAGGCGCTAAACCCGATTATGGAGCATGTGCTGAAGCCGTTAATGGAGCTG
ATTGGCAAGGCGATTACCAAAGCGCTGGAAGGATTAGGCGTCGATAAGAAAACGGCAGAG
ATGGCCGCGCAGCATTGTTGGTGCATTGTGCGCCGCTATTGCCATGGTGGCGGTCATTGTG
GTGGTCGCGAGTTGTGCGGAAAGGCGCGGCGCGGAACTGGGTAAACGCGCTGAGCAAAATG
ATGGGCGAAACGATTAAAGAAGTTGGTGCCTAACGTGCTGAAACAGTTGGCGCAAAACGGC
AGCAAACTCTTTACCCAGGGGATGCAACGTATTACTAGCGGTCTGGGTAATGTGGGTAGC
AAGATGGGCCTGCAACGAATGCCTTAAGTAAAGAGCTGGTAGGTAATACCCCTAAATAAA
GTGGCGTTGGGCATGGAAGTCACGAATACCGCAGCCAGTCAGCCGGTGGTGTGGCCGAG
GGCGTATTTATTAAAAATGCCAGCGAGGCGCTTGCTGATTTTATGCTCGCCCGTTTTGCC
ATGGATCAGATTCAGCAGTGGCTTAAACAATCCGTAGAAATATTTGGTGAAAACCAAGAG
GTAACGGCGGAACTGCAAAAAGCCATGTCTTCTGCGGTACAGCAAAATGCCGATGCTTCG
CGTTTTTATTCTGCGCCAGAGTCGCGCATATAAACTCCGCGCTTATTTAAATAATCATTCTGTTGAGAAT
TTAATTAGTAATGTGGGAATAAATCCCGCGCTTATTTAAATAATCATTCTGTTGAGAAT
AGTTCACAGACAGCTTCGCAATCCGTTAGCGCTAAAGATATTCTGAATAGTATTGGTATT
AGCAGCAGTAAAGTCAGTGACCTGGGGTTGAGTCCTACACTGAGCGCGCCTGCGCCAGGG
GTATTAACGCAAAACCCCGGAACGATCACGTCTTTTTTAAAAGCCAGTATTCAAAATACC
GACATGAATCAGGATTTGAATGCTCTGGCAAATAATGTCACGACTAAAGCGAATGAGGTT
GTGCAAACCCAGTTACGCGAGCAGCAGGCAGAAAGTCGGAAAGTTTTTTGATATTAGCGGA
ATGCTTCCAGTGCCGTTGCGCTGTTGGCTGCCGCGAATACGTTAATGCTGACGTTGAAC
CAGGCTGATAGCAAACTGTCTGGTAAGTTGTCTTAGTCAGTTTGTATGCAGCTAAAACG
ACGGCAAGCTCCATGATGCCGGAAGGGATGAATCGGTTGTCCGGTAGTATTTCCAGAGC
GCGCTTCAGTTGGGGATCACTGGCGTGGGCGCCAACTGGAATATAAGGGGCTGCAGAAT
GAAAGAGGCGCGCTTAAACATAATGCCGCGAAGATCGATAAACTGACCACTGAAAGCCAC
AGATTAAAAACGTTGCTGAACGGGCAGAATAGCGTCAAACTCGGTGCTGAAGGCGTCGAT
TCTCTGAAATCGTTAAATATGAAGAAAACCGGTACCGATGCGACGAAAAATCTTAATGAT
GCGACGCTTAAATCTAATGCCGGAACCAGCGCCACGGAAAGTCTGGGTATTAAAGACAGT
AATAAACAAATCTCCCCTGAACATCAGGCTATTCTGTGCAAACTCTTGAGTCTGTGCAA
TCCGATATTCTGTTGAGCAGAATACCATGGATATGACCCGAATCGATGCGCGCAAGATG
CAGATGACGGGCGATCTGATTATGAAGAACTCGGTACCGGTCCGTTGGTATTGCAGGGCG
TCCGGGCAGTACGCCGCTACTCAGGAACGTTCCGAGCAGCAAAATTAGCCAGTGATAAAC
CGGGTTGCCAGCACCGCATCGGACGAAGCCGTTGAAAGTTACGTAATTCGACCGAGCCTG
ATTCAGGAAATGCTGAAACAATGGAGAGCATTAACCAGTTCGAAAGCATCCGCACTCGCT
GCTATCGCAGGCAATATTTCGCGCTTAATCTGAAAGGTCATCTATACGCCATCATGGGTGT
GATTTAATCGCGCTCCTGATGGCGAACTGGGGATATTATGCTTAATATTCAAAATTATTC
CGCTTCTCTCATCCGGGGATCGTTGCCGAACGGCCGCACTCCCTCGGCGAGCGAGCA
CGTCGAGACTGCCGTGGTACCGTCTACCACAGAACATCGCGGTACAGATATCATTTCATT
ATCGCAGGCGGCTACTAAAATCCACCAGGCACAGCAGACGCTGCAGTCAACGCCACCGAT
CTCTGAAGAGAATAATGACGAGCGCACGCTGGCGCGCCAGCAGTTGACCAGCAGCCTGAA
TGCGCTGGCGAAGTCCGGCGTGTCAATTATCCGCAGAACAAAATGAGAACCTGCGGAGCGC
GTTTTCTGCGCCGACGTCGGCCTTATTTAGCGCTTCGCCTATGGCGCAGCCGAGAACAAC
CATTTCTGATGCTGAGATTTGGGATATGGTTTCCCAAAATATATCGGCGATAGGTGACAG
CTATCTGGGCGTTTATGAAAACGTTGTGCGCAGTCTATACCGATTTTTTATCAGGCCTTCAG
TGATATTCTTTCCAAAATGGGAGGCTGGTTATTACCAGGTAAGGACGGTAATACCGTTAA
GCTAGATGTTACCTCACTCAAAAATGATTTAAACAGTTTAGTCAATAAATATAATCAAAAT
AAACAGTAATACCGTTTTATTTCCAGCGCAGTCAGGCAGCGGCGTTAAAGTAGCCACTGA
AGCGGAAGCGAGACAGTGGCTCAGTGAATTGAATTTACCGAATAGCTGCCTGAAATCTTA
TGGATCCGGTTATGTCGTACCGTTGATCTGACGCCATTACAAAAAATGGTTTCAGGATAT
TGATGGTTTTAGGCGCGCCGGGAAAAGACTCAAACTCGAAATGGATAACGCCAAATATCA
AGCCTGGCAGTCGGGTTTTAAAGCGCAGGAAGAAAATATGAAAACCAATTACAGACGCT
GACGCAAAAATATAGCAATGCCAATTCATTGTACGACAACCTGGTAAAGTGCTGAGCAG
TACGATAAGTAGCAGCCTGGAAACCGCCAAAGCTTCCTGCAAGGATAACGAGAAGGAT
ATTAATAATGGTTACAAGTGAAGGACTGACGCCCCCGTCATAATGCCAGGTATGCAGAC
CGAGATCAAAAACGCAGGCCACGAATCTTGCGGCGAATCTTTCCGCAGTCAGAGAAAGTGC
CACAGCGACGCTGTCAGGGGAAATTAAGGCCCGCAACTGGAAGATTTTCCGCGCTGAT
CAAAACAGGCGAGTCTGGATGC

SEQ ID NO:15

FIG. 28

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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GAGCTCAGCAACGTGTGCGAAAGCCTGTAAAATCATGGGCGTCTCGCGCGATACGTTTTTAC
CGTTATCGTGAACCTGGCCGATGAAGGCGGCGTTGATGCGCTGATAAATCGTAGTCGCCGC
GTACCTAACCTTAAGAACCGTACCGATGAGGCAACTGAGCAAGCTGTTGTTGATTATGCC
GTTGCGTTCCCGGCCCATGGTCAGCACCGAACTGCGCAAACAGGACGTTTTTATCTCCGG
TAGTGATGTCCATTCCGTCTGGCTGCGCGATGGCATTGAACTGACTGCCAGATCGCCGCGCTGG
GCGCTGGAAGAAAAAGTGGCCCGCGATGGCATTGAACTGACTGCCAGATCGCCGCGCTGG
AGCGTAAAGCCAGTGATGATGAAGCCTGTGGTGAGATTGAAACCGTTCATCCGGGATATC
TGGGTCACAGGACACGTTCTACGTGGGCAACCTGAAAGGCGTTGGGCGAATCTATCAGC
AGACGTTCTGTTGATACATACTCGAAGGTGGCTCACTGCAAGCGCTATATCACCAAACGC
CGATTACAGCGGCTGATTTGCTGAATGATCGTGTACTGCCGTTTATGAGTCTCAGGGCCT
GCCGATGCTAAGGATACTGACAGACAGGGGTACAGAATATTGCGGCAAAGTGGAAACATCA
TGATTATCAGCTTTATCTGGAGATAAATGACATCGAACACAGAAACGAAAGGCGATGTC
CCCGCAGACCAATGGCATCTGCGAGCGGTTCCATAAAACGATACTGAACGAATTTTATCA
GGTGACGTTCCGCAAAAAGTTATATGGCGATTTTGGATACATTACAATCGGATCTTGATGA
ATGGCTGGTTCACTATAATAATGAGCGAACCCTCAGGGAAAAATGTGCTGTGGCCGGAC
GCCGATGGAACGTTACTTGATGGAAAACGCATCTGGTCTGAGAAGAATTTAAGCCAGAT
GTAATCTGACAGATACCTGTATAAATAACCGGTAACCTGTGATCAGGTCTGAGCTAATA
CAACTAATTGTATGTTATTTGTCGTTTATTGCTAAATATATATCGTTAATTGAAGGCTTG
ATGCGTGTGTCTGCGTTAATCTCTTTTCATTGTGCTGTAAATTAGGCAGTGGAAATATGTT
TAATATCCGCAATACACAACCTTCTGTAAGTATGCAGGCTATTGCTGGTGCAGCGGCAC
AGAGGCATCTCCGGAAGAAATTGTATGGGAAAAATTCAGGTTTTTTTCCCGCAGGAAAT
TACGAAGAAGCGCAACAGTGTCTCGCTGAACCTTGCCATCCGGCCCGGGGAATGTTGCCT
GATCATATCAGCAGCCAGTTTGCGCGTTTAAAGCGCTTACCTTCCCGCGTGGGAGGAG
AATATTCAGTGTAACAGGGATGGTATAAATCAGTTTTGTATTCTGGATGCAGGCAGCAAG
GAGATATTGTCAATCACTCTTGATGATGCCGGGAACCTATACCGTGAATTGTCAGGGGTAC
AGTGAAGCACATGACTTCATCATGGACACAGAACCAGGAGAGGAATGCACAGAATTCGCG
GAGGGGGCATCCGGGACATCCCTCCGCCCTGCCACAACGTTTTACAGAAGGCAGCAGAG
TATGATGCTGTCTGGTCAAATGGGAAAGGGATGCACCAGCAGGAGAGTCACCCGGCCGCG
CAGCAGTGGTACAGGAAATGCGTGATTGCCTGAATAACGGCAATCCAGTGCTTAACGTGG
GAGCGTCAGGTCCTTACCACCTTACCAGACCGTTTACCACCGCATATTACAACACTGGTTA
TTCTTGATAATAATCTGACCAGCCTGCCGGAGTTGCCGGAAGGACTACGGGAGCTGGAGG
TCTCTGGTAACCTACAACCTGACCAGCCTGCCATCGCTGCCGAGGACTACAGAAGCTGT
GGGCCTATAATAATTGGCTGGCCAGCCTGCCGAGATGCCGCCAGCACTACGGGAGCTGA
CGGTCTCTAATAACCAGCTGACCAGCCTGCCGGAGATGCCGCCAGCACTACGGGAGCTGA
GGGTCTCTGTAAACAACCTGACCAGCTGCCGCGCTGCCGTGAGGACTACAGAAGCTGTG
GGCCTATAATAATCGGCTGACCAGCCTGCCGGAGATGTCGCCAGGACTACAGGAGCTGGA
TGTCTCTCATAACCAGCTGACCCGCTGCCGCAAGCCTCACGGGTCTGTCTTCAGCGGC
ACGCGTATATCTGGACGGGAATCCACTGTCTGTACGCACTCGTGACAGGCTCTGCGGACA
TCATTGGCCATTACGGCATCAGGATACACTTCGATATGGCGGGGCTTCCGTCGCCCGGA
AGCCCGGGCACTGCACCTGGCGGTGCTGACTGGCTGACGTCTGCACGGGAGGGGAAGC
GGCCAGGCAGACAGATGGCAGGCGTTGCGACTGGAAGATAACGCCGGGCTTTAAGGCACA
GGTCCTGGACAGACTGCGTGAGACGGAAAACCTCAAAAAAGACGCGGGCTTTAAGGCACA
GATATCATCCTGGCTGACACAACCTGGCTGAAGATGCTGCGCTGAGAGCAAAAACCT
TTGCCATGGCAACAGAGGCAACATCAACCTGCGAGGACCGGGTCACACATGCCCTGCACC
AGATGAATAACGTACAACCTGGTACATAATGCAGAAAAAGGGGAATACGACAACAATCTCC
AGGGGCTGGTTTCCACGGGGCGTGAGATGTTCCGCTGGCAACACTGGAACAGATTGCC
GGGAAAAAGCCGGAACACTGGCTTTAGTCGATGACGTTGAGGTCTATCTGGCGTTCCAGA
ATAAGCTGAAGGAATCACTTGAGCTGACCAGCGTGACGTGAGAAATGCGTTTCTTTGACG
TTTCCGGCGTGACGGTTTCA
GACCTTCAGGCTGCCGACGTTTCAAGTGAAAACCGCTGAAAACAGCGGGTTCAGTAAATGG
ATACTGCAGTGGGGGCGTTACACAGCGTGCTGGAAACGCAAAAGTGCCGGAACGCTTTAAC
GCGCTTCGTGAAAAGCAAATATCGGATTATGAAGACACGTACCGGAAGCTGTATGACGAA
GTGCTGAAATCGTCCGGGCTGGTCGACGATACCGATGCAGAACGTACTATCGGAGTAAGT
GCGATGGATAGTGCAGAAAAAGAAATTTCTGGATGGCCTGCCGCGCTTTGTGGATGAGGTG
CTGGGTAGCTATCTGACAGCCCGGTGGCGCTTTAACTGAGCACGATATTCTCCGCACCAG
GCGAATGTGGTGCGGTGAACAAAGATATTCCTTGGACAAACAACATGAGACAGCACTGAT
GATGCACAGGTGAAACAGGGGAGACTTCTTCAGTCAGGGCGTACGCAACTCAACCTTTTC
GACGATACGCGCC/

SEQ ID NO:16

FIG. 29